the care: 78% recommend swimming; 68% regular walks; 55% yoga; 27% stretching and 23% bicycling. **CONCLUSIONS:** FMS is a frequently diagnosed illness in general medicine (6 FMS patients/GP). The difficulties in treating the illness seem evident as shown by the multiple therapeutic choices. We may note the important recommendation of "alternative" medicine and physical exercise.

## ARTHRITIS

### ARTHRITIS—Methods and Concepts

**PAR24**

#### RELATIONSHIPS BETWEEN AGE, NUMBER OF PRESCRIPTIONS, AND CO-MORBIDITIES AMONG VA PATIENTS

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**OBJECTIVE:** To determine the relationship between the Charlson co-morbidity index and age and annual number of prescriptions dispensed among a sample of Veterans Affairs (VA) patients receiving nonsteroidal anti-inflammatory agents (NSAIDs). **METHODS:** NSAID patients treated at three VA medical centers were identified from a previous study. Prescription records, demographics, and International Classification of Disease-9 (ICD-9) diagnoses were obtained from the VA electronic databases. The comorbidity index for each patient was determined by applying appropriate weights to ICD-9 diagnoses and summing the weights for each patient. We applied stepwise regression with co-morbidity index as the dependent variable and age and number of prescriptions as independent variables. We used VA-1 as the pilot study, to determine if a relationship existed between the variables. We performed the same analyses using the additional two medical centers to validate the relationship. **RESULTS:** There were 17,893 patients included in the study, 7322 at VA-1, 6094 at VA-2, and 4447 at VA-3. Mean ages ± standard deviations (SD) were 59.5 ± 13.3, 58.4 ± 13.0, and 62.5 ± 13.1, respectively. Mean annual numbers of prescriptions (±SD) were 33.6 ± 31.7, 31.8 ± 29.9, and 47.9 ± 39.5, respectively. Mean comorbidity weights (±SD) were 2.1 ± 2.4, 1.5 ± 2.1, and 1.6 ± 1.9, respectively ($p < 0.001$). Stepwise regression results, with comorbidity as the dependent variable, were significant ($p < 0.001$) for age and number of prescriptions and explained 20.2%, 16.7%, and 14.4% of the variance. When data were combined and VA medical center was included, the model explained 18.8% of the variance ($p < 0.001$ for medical center, age and number of prescriptions). The adjusted mean comorbidity weights by VA medical center were 2.2 (standard error (SE) = 0.023), 1.6 (SE = 0.25) and 1.3 (SE = 0.30) respectively. **CONCLUSION:** Among VA NSAID patients, the annual number of prescriptions, medical center, and age are strongly related to the Charlson co-morbidity index.

**PAR25**

#### CROSS-VALIDATION OF A NEW QUESTIONNAIRE DESIGNED TO PREDICT FUTURE RISK OF NSAID-INDUCED GASTROINTESTINAL EVENTS

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**OBJECTIVES:** The objective of this study is to cross-validate a new questionnaire designed to predict the future risk of NSAID-induced gastrointestinal events against a standard questionnaire, the GI SCORE survey. **METHODS:** Four-hundred consenting, consecutive patients from a rheumatology clinic in the mid-western United States were administered both questionnaires. The questionnaires were not administered in any particular order. The new questionnaire contains questions that are similar to five of six questions found in GI SCORE, in addition to five questions not found in GI SCORE. The completed GI SCORE questionnaires were scored and the associated risk levels were determined. Feasible generalized least squares (FGLS) and multinomial logistic (MNL) regression were used to map the questions from the new questionnaire onto the scores and two different groups of risk levels, respectively, determined from GI SCORE. Based on the results of the FGLS analysis, a scoring scheme was created for the new questionnaire, allowing the prediction of risk levels similar to GI SCORE. Risk levels generated from both FGLS and MNL were compared to those predicted by GI SCORE. **RESULTS:** For FGLS, the new questionnaire predicted risk levels that matched those predicted by GI SCORE with 83% accuracy. When the original 4 risk levels predicted by GI SCORE were collapsed into 3 risk levels, with the 2 most severe risk levels becoming a single risk level, the predictions from the new questionnaire were 89% accurate. For MNL, the new questionnaire was 76% and 87% accurate for four and three risk levels, respectively. **CONCLUSIONS:** The new questionnaire appears to be reasonably accurate in predicting the same risk as those predicted by a standard survey. FGLS is slightly more accurate than MNL in predicting risk for both groups of risk considered.

**PAR26**

#### COST-UTILITY OUTCOMES SIMULATION MODEL FOR OSTEOARTHRITIS (OA) AND RHEUMATOID ARTHRITIS (RA) PATIENTS (COSMO): DEVELOPMENT AND VALIDATION OF A PHARMACOECONOMIC MODEL

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**OBJECTIVE:** To construct a flexible and transparent pharmacoeconomic model to assess the value of COX-2 selective inhibitors (COX-2s) in the treatment of arthritis. **METHODS:** Literature searches and interviews with Health Care practitioners were conducted to identify critical issues for model construction. Model assumptions and parameters estimates for the new COSMO model were made based on these efforts. Convergent validity was assessed by comparing COSMO model outputs to results obtained using previously published models, when similar inputs were used in each model. **RESULTS:** Because arthritis patients often switch medications, the COSMO model simulates treatment strategies, rather than individual drugs. COSMO allows users to compare strategies under which patients start on an NSAID or COX-2 and switch medications twice. It was structured as a one-month cycle Markov model with the following disease states: GI discomfort, loss of efficacy, complicated ulcer, uncomplicated ulcer, CV event, no events, and death. Inputs allowed for different levels of complexity to address the difficulty in obtaining data sources in different countries. Multiple clinical (number of deaths, GI discomfort, ulcers, uncontrolled arthritis) and economic (drug costs, costs of managing GI and CV events, total costs) outputs were included. Monte Carlo simulations, acceptability curves, cost-effectiveness planes and extensive univariate and multi-variate sensitivity analysis can be performed with any input. For base case analyses, we assume a 3rd party payer perspective. In the validation exercise, we applied inputs from a published model (Maetzel et al., 2003), and obtained similar results (7% variation) and similar trends in sensitivity analyses, suggesting strong convergent validity. **CONCLUSIONS:** COSMO is a pharmacoeconomic model that assesses the value of different treatment strategies for